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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/732,822

12/10/2003

Joseph Zelvin

10276-085001

6791

26161

7590

03/22/2007

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EXAMINER

MAI, HUY KIM

ART UNIT

PAPER NUMBER

2873

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

03/22/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/732,822

Applicant(s)

ZELVIN ET AL.

Examiner

Huy K. Mai

Art Unit

2873

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-43,60,61,63 and 64 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1-43,60,61 and 64 is/are rejected.
- 7) ☒ Claim(s) 63 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

  
**Huy Mai**  
**Primary Examiner**

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 9/06
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on Dec. 11, 2006 has been entered.

### ***Information Disclosure Statement***

2. The information disclosure statement (IDS) filed Sept. 25, 2006 is acknowledged.

### ***Claim Objections***

3. Claims 28, 29, 38, 60 and 63 are objected to because of the following informalities: The phrases "an illumination path" (claim 28, line 2; claim 29, line 2; claim 38, lines 2,9; claim 37, line 2; claim 60, lines 2,7 and claim 63, line 4) and "an imaging path" (claim 28, line 7; claim 29, line 2; claim 38, lines 8,9 and claim 60, lines 6,7) should read --an illumination path system-- and --an imaging path system--, respectively, for example, in order to prevent the 112, second paragraph, problems. Appropriate correction is required.

(NOTE: The terminology "an illumination path" in the phrase "an illumination path which receives light" (claim 28, line 2) describing an illumination path system is inaccurate because an illumination path is not an optical element, but an imagination line extending along an illumination axis of an illumination path system. An illumination path could not receives light, but an illumination path system does. Therefore, the feature "an illumination path" renders claim indefinite as discussed above.)

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 6, 8, 11, 12, 14, 19, 21, 24, 25, 27-30, 34, 35, 38-41, 43, 60, 61 and 64 are rejected under 35 U.S.C. 102(b) as being anticipated by Wei (5,506,634).

The limitations in claims 1, 14, 27, 28 and 64 are shown in Wei et al's Fig.1, columns 3-4. Wei et al discloses an fundus/retinal imaging system comprising a light source 1; optics (500,2,3,4,5,6,7,8,9,11) which receive light from the light source and which transmit the light to produce a beam that is substantially convergent, the beam entering an eye along a first axis, penetrating a lens 12 of the eye, and diverging following penetration of the lens to illuminate an area of a retina of the eye, the beam converging until reaching the lens; and an imaging device 470 that receives imaging rays produced by a reflection of the beam from the retina, wherein the imaging rays exit the eye along a second axis that is separate and different from the first axis.

Regarding claims 38-41, 43, 60 and 61, it should be noted that although claims 38-41, 43, 60 and 61 "method claims", the method steps consist of the broad steps of "generating", "directing", receiving" passing", "positioning" and "producing" etc and therefore these steps would be inherently satisfied by the apparatus of the reference.

Regarding claim 6, 19, Wei et al discloses a surface having an aperture 3 for limiting the size of the beam and/or the angle of light reach to the optics.

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Regarding claims 8, 11, 12, 21, 24, 25, 29, 30, 34 and 35, since Wei et al discloses an ophthalmologic apparatus, the base, the slit lamp, the hosing and means for adjusting the housing relative to the eye are inherently included in the Wei et al's ophthalmologic apparatus.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2, 3, 7, 15, 16, 20, 31, 32, 33 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wei et al in view of LeVantine (3,984,157).

Wei et al discloses the claimed invention as discussed above, but does not expressly teach a light trap for absorbing excess illumination directed away from the eye via a beam splitter. LeVantine teaches an ophthalmoscope with a light trap (Fig. 2). At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify Wei et al's apparatus to include a light trap in order to absorb excess light not used for illuminating the retina, as taught by LeVantine.

Regarding claims 7, 20 and 33, absence in showing the new or unobvious results and the reasons why the retinal imaging system needs a series of surface that form a series of apertures instead of a single surface having an aperture for the same purpose of limiting the size of the beam and/or the angle of light reach to the optics, it would have been an obvious engineering choice to form such a series of surface that form a series of apertures for the same purpose as discussed.

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8. Claims 9, 10, 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wei et al in view of Shipp (5,471,237).

Wei et al discloses stereoscopic imaging of the retina (column 6, lines 42-60), but does not expressly disclose a stereo filter. Shipp clearly teaches the use of stereo optics for producing left and right optical zones. At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify Wei et al's device to include a stereo filter as taught by Shipp, in order to obtain stereo images of the retina.

9. Claims 4, 5, 17, 18 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wei et al in view of Takahashi (4,453,808).

Wei et al discloses an ophthalmologic apparatus for reducing unwanted corneal reflections, but does not expressly teach an aperture for blocking said reflections. Takahashi teaches a confocal aperture 12 disposed to block the light reflected from the cornea (col. 4, lines 18-23). At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify Wei et al's device to include an aperture for the express purpose of blocking unwanted corneal reflection during imaging, as taught by Takahashi.

10. Claims 13, 26 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wei et al.

Wei et al discloses an fundus/retinal imaging system comprising a light source 1; optics which receive light from the light source and which transmit the light to produce a beam that is substantially convergent, the beam entering an eye along a first axis, penetrating a lens 12 of the eye, and diverging following penetration of the lens to illuminate an area of a retina of the eye, the beam converging until reaching the lens; and an imaging device 470 that receives imaging

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rays produced by a reflection of the beam from the retina, wherein the imaging rays exit the eye along a second axis that is separate and different from the first axis. Though not expressly disclosed, one of ordinary skill in the art would be apprised that multicolored LEDs are common light source expedients in the art and as such it would have been obvious to one of ordinary skill in the art to modify Wei et al's retinal imaging system to include multicolored LEDs.

*Allowable Subject Matter*

11. Claim 63 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

*Response to Arguments*

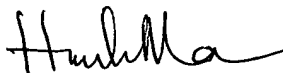
12. Applicant's arguments with respect to claims 1-43,60,61 and 64 have been considered but are moot in view of the new ground(s) of rejection.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huy Mai whose telephone number is (571) 272-2334. The examiner can normally be reached on M-F (8:00 a.m.-4:30 p.m.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky L. Mack can be reached on (571) 272-2333. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-1562.



Huy Mai  
Primary Examiner  
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HKM/

March 16, 2007